

NUTTALL IN 1815

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THE taxonomist who works with Nuttall's specimens gets only vague help from the labels toward determining their origin; a date of any sort is most rare, and stations are indicated in prodigious areas like "Shores of Lake Erie," "Col. R." and "Rocky Mts." It is incumbent on the student to be versed in the many journeys of this pioneer botanist in order to spot the approximate time and location of a collection. Hence, it is fortunate that accounts of Nuttall's most far-reaching expeditions were published either by Nuttall himself or by some companion of the journey—the trips to the Upper Missouri (1810–11), along the Arkansas (1818–20), by the Oregon Trail to the mouth of the Columbia (1834–36), even the rounding of Cape Horn in the depth of the southern winter with its glimpse of Staten Land, tantalizing to Nuttall but barren and repellant to the sailors. However it is quite otherwise in the case of his shorter collecting excursions of less than a year's duration made east of the Mississippi; of these no contemporary descriptions were published and the obituaries deal with them in airy generalities.

The bulk of Nuttall's collecting in the east was done prior to the publication of *Genera of North American Plants, and a Catalog of the Species to the Year 1817* which appeared in 1818, ten years after the author's first arrival in America. Since he was in the eastern United States for only half of the decade the task of mapping the forays involved is narrowly circumscribed, but no guide to them was compiled for more than a hundred years after the specimens were harvested. We are indebted to Pennell's 1936 biography for the first serious attempt to establish the times and routes of the major eastern tours.² This was done successfully for most of the period under discussion by plotting the places and dates mentioned in Nuttall's numerous publications, with the invaluable aid of a few key letters of the botanist which had come to light.

Pennell's chronicle indicates no long botanical excursions

¹ JEANNETTE E. GRAUSTEIN. "Nuttall's Travels into the Old Northwest," *Chronica Botanica* XIV (1950/51), 1–88.

² Francis W. Pennell, "Travels and Scientific Collections of Thomas Nuttall," *Bartonia* XVIII (1936), 1–51.

during Nuttall's first year in America. In 1809 there was a journey in June to Delaware and a second in late summer and autumn to Niagara Falls. The famous trip which culminated in the ascent of the Missouri occupied most of 1810 and 1811, and the next three years were spent in England with a return made to America at some time in the fourth year, 1815. Pennell's account for 1815 is pure speculation except for the documented visit which Nuttall paid to William Baldwin in Savannah in the "fall." On the other hand his recording of Nuttall's extensive 1816-17 travels through western Pennsylvania, down the Ohio, through Kentucky, and across the southern Appalachians is well authenticated. The rest of 1817 and early 1818 was spent in Philadelphia compiling the *Genera*.

Fortunately the record for 1815 can now be filled in from Nuttall's own account found in a letter which he wrote on January 26, 1816, from Wilmington, North Carolina, to Sir Aylmer Bourke Lambert, wherein he gave an animated narrative of his experiences during the previous nine months.³ This letter [the text is given below] reached a haven at the Herbarium of Kew Gardens many decades ago.

Incidentally the letter also solves the mystery of whether Nuttall ever made a report in person to Dr. Benjamin Smith Barton, the promoter of his expedition to the West. The answer to this question must be an "Everlasting No." since Barton had left Philadelphia for the continent of Europe in April, 1815, whereas Nuttall's letter reveals that he did not reach that port until mid-July; and Barton came back to America only shortly before his death at the end of the year while Nuttall was in the South. In this connection it should be recalled that Nuttall, returning down the Missouri River to New Orleans in the autumn of 1811, instead of taking his booty to Barton in Philadelphia had shipped seeds and dried specimens to him and embarked for England.

Whether sailing to his homeland was a free decision or one forced by rising hostilities is still not clear, but once in England Nuttall was obliged to remain there until the peace was signed at the close of 1814. Then he seems to have started promptly

³ "Lambert's Correspondence," Letter No. 96. MS, Royal Botanical Gardens, Kew. The writer is grateful to the Keeper of the Herbarium, for the opportunity of consulting the manuscript collections preserved there.

to settle his various affairs for a second emigration to America for his letter informs us that he took passage in the spring of 1815.

Wilmington [North Carolina]
Jany 26th 1816

A. B. Lambert, Esqr—

Dear Sir,

A detail of all my journeys, my adventures, and Botanical discoveries, is much more than I can promise you in this sheet, however happy I might be to indulge my vanity and perhaps tire your patience. If they shall be hereafter deemed worthy by my friends I shall not hesitate to offer my journals to the public, notwithstanding their imperfections.

It was on the 8th of last May that I left Gravesend again to traverse the Atlantic. I had scarcely proceeded to see [sic] when I discovered that myself and about 30 other passengers with a numerous crew of liberated prisoners, had committed our propertys and persons to the conveyance of a wreck and the guidance of a knave. I shall not trouble you with a detail of the villanies and negligence of a renegado who had even fought under the banners of French anarchy and enlisted in the sacrilegious mob whose only aim appeared to be to annihilate the last bonds of human society. By better Fortune than we had any reason to expect, after a tedious passage of *nine* weeks in a vessel every moment on the point of foundering or shipwreck we arrived at the port of Philadelphia about the middle of July. The season was extremely sultry, but my health remained unimpaired. Commercial concerns of trifling importance held me in this place untill the close of August. I now proceeded by Lancaster, York, Hanover and Fredericktown in Maryland to Harper's-Ferry in Virginia the stupendous scene so elegantly described by the ex-president Jefferson in his Notes on Virginia where the rivers Shenandoah and Potomac uniting, appear to burst their way thro' the Blue Ridge, a chain of the Alleghany Mountains, a landscape of horrible grandeur and wild magnificence, of mingled rocks, roaring rivers, and gloomy forests, beyond all the powers of the pencil to imitate.

From the romantic and fertile vale of the Blue Ridge after an excursion of about a month, I proceeded down the Potomac, occasionally lined by the magnificent *Quercus macrocarpon*, *Robinia Pseud-acacia*, and *Porcelia triloba*, to the port of Alexandria, and on the way I had a sight of Washington in its ignominious ruins, the deserted palace of the president and the magnificent wreck of the imaginary Capitol!

On the same day that we left Alexandria, the breeze conducted us past the rural seat of the immortal Washington,—the sacred groves of Mount Vernon, the peacefull but forsaken residence of the Father of America!

In two days more we entered the tepid gulph of Florida and witnessed no less than 6 waterspouts in succession accompanied by streams of rain and thunder. in the midst of winter we have experienced the mildness of a perennial spring. In ten days we arrived at the port of Savannah in Georgia, a town built in the West India style upon a high bank of moveable sand and surrounded by deep and undrainable swamps, a situation so unhealthy as to be justly dreaded by Europeans who but seldom escape either death or disease. Here I was so fortunate as to meet in Dr. Baldwyn of the United States navy, a botanist better acquainted with the plants of America than any other person I have yet met with. For more than a week together we were engaged in looking over his herbarium replete with new plants, collected in East and

West Florida near the sea-coast. it was here I first became acquainted with the interesting *Epidendrum Magnoliae*, a plant wh. Doctor B. described as common upon various trees near the town of St. Mary's, in Florida. Some days after this admiring the magnificence and extraordinary elevation of a fine *Magnolia grandiflora* a mile from Savannah I thought I beheld a parasitic plant embracing its lofty branches. I now instantly examined all the *Magnolias* round me and found that I had discovered the *Epidendrum* by this time I doubt not but you have seen this plant of which I sent a considerable quantity to Anderson and desired him to send you a plant. Near Savannah grows a singular thicket of the *Pinckneya*, the *Tripterella* * *coerulea*, *Caladium speciosum*, *Dichroma leucocephala*, *Lilium Carolinense*, *Liatris speciosa*, *L. odoratissima*, *L. paniculata*, *L.* puberula*, *L. spicata*, *L.* pedunculata* (I am now acquainted with 14 species of this genus) *Kalmia hirsuta*, *Xyris* * *gelatinosa*, *Gerardia* * *linifolia* (this new species I have sent to Anderson under the name of *G.* crassiuscula* but there can be no better name than that of *G.* LINIFOLIA*, it is a perennial purple flowered species,—I first discovered it near Savannah, and I have now occasionally met with it to Wilmington (North Carolina).

After about a month's residence in Savannah I continued my journey to Augusta in this state. I heard of Abbot but had not the pleasure of seeing him. In my way thro' these forests of perennial verdure almost exclusively filled with the *Pinus australis*, in a soil of almost pure sand, I was occasionally gratified by repeated discoveries of new and rare plants. In Doctor Baldwin's herbarium I observed a very singular new genus of syngenesious plants, wh. he found on the banks of the Altamahah, the river ascended by Bartram, accompanied by a new species of *Hymenopappus* with entire lanceolate leaves large white flowers, and furnished with a long *acuminated* pappus of 5 divisions, the new genus I have called *Baldwynia cellulosa*, this plant possesses an elevated receptacle perforated by pentagonal cells like honey-comb so deep as completely to envelope the seeds from sight which are furnished with a chaffy pappus; about 20 mls. from Savannah on my way to Aususta I found a second species of this interesting genus accompanied by the . . . *Chaptalia* in . . . and a beautiful new *purple* flowered species of *Coreopsis!* not [at] all allied to the D'Halsa of Mexico. Near here I met with the curious species of *Nymphaea* described by Walter as the *N. longip* . . . [Letter torn] Its leaves a good deal like those of *N. odorata* round large and floating on the surface of the water produces often petioles of a *fathom* in length! and **YELLOW flowers**. Wherever the sterile platform of sand was diversified by a gravelly hill the southern oaks uniformly made their appearance such as the *Quercus Catesbei*, *Q. nigra*, *Q. triloba*, *Q. cinerea*, *Q. obtusiloba*, and *Q. coccinea* but the most prevalent of all the species is the *Q. Catesbei* wh. appears often after the prevalence of the pines to usurp the place of the long leaved Pine. 32 mls. West of Savannah I observed abundance of the *Mylocarium* the *Brunnichia* and the *Gleditscia* [sic] *monosperma*. 42 mls. from Savannah on the road I found the *Laurus diospyros*, and the *Chrysobalanus* * *oblongifolius* of Muhlenberg's catalogue wh. produces a large edible plumb of a clear red and contains a seed enveloped by a *soft* quinque-partile shell, it is a shrub of scarcely *one* foot in height sending out innumerable surculi, the stem is never branched and the flowering panicle terminal. The leaves are lucid, coriaceous cuneate-oblong, and generally evergreen I next found a new and elegant *suffruticose* species of *Hedeoma*, the *Petalostemon carneum*, *Raynia perfoliata* a new *Cupressus?* The *Sparganophorus verticillatus*, a new *Rudbeckia*, a new *Polygala* & *Ceanothus microphyllus* two or 3 species of *Podalyria*, *Psoralea mollis*, *Galardia*

bicolor, a grassy leaved *Helonias*, *Amsonia angustifolia*, a new *Aristida* with remarkably long awns. After spending a few days in Augusta in the agreeable company of Dr. T. Wray I crossed the Savannah and have now crossed the center of South Carolina to this place. I cannot here detail to you in any way my discoveries in So. Carolina. I will just mention some of the principal—12 mls. from Augusta I found to my great gratification the singularly beautiful shrub *Ceratiola Ericoides* it looks exactly like a Cape heath, grows 12 feet high and was now filled with aggregate clusters of greenish yellow berries, and I have got abundance of its seeds. here I also found the *Iris tripetala* of Walter and a new *Liatris* perfectly smooth and branched from the base of the stem. Near Wilmington I have found the *Phlea tenuifolia* of Michaux and have sent roots to Anderson and ordered him to send you one.

If no extraordinary disappointment takes place with me I hope to ascend Red River of the Mississippi and examine the adjoining province of Mexico in wh. no doubt I shall meet a rich harvest of Botanical treasure.

Yours by every obligation

Thos Nuttall

Inclosed you will observe the *Tripterella coerulea*, is it not the *Burmennia biflora* of Linnaeus? I should be glad to know. Direct me at the Philadelphia Post-Office.

A NOTE ON *CERATOPHYLLUM DEMERSUM* AND *C. ECHINATUM* IN WORCESTER COUNTY, MASSACHUSETTS.—Until 1953, only one sheet of *Ceratophyllum* had been collected in fruit from Worcester County, Massachusetts. An ardent plant collector of herbarium specimens, Rev. Frank C. Seymour, has remembered that “I have searched for the fruit of *Ceratophyllum* all my life, but never found it.”¹ The late Dr. Fernald said “. . . We strained our backs, legs and eyes, bending over and carefully fingering, underwater, thousands of plumes of the *Ceratophyllum* in a vain search for fruit.”²

However, during the summer of 1953, while studying and collecting aquatic plants of Worcester County, numerous mature fruiting specimens of both *Ceratophyllum demersum* L. and *C. echinatum* Gray were found by the writer. According to Fernald,³ *C. demersum* “. . . needs careful collecting and study,” and *C. echinatum* is “. . . less often collected than No. 1.” [the previous species]

One specimen of *C. demersum* was collected in fruit from Bartlett Pond, Northboro, Mass., on August 6, 1953. Speci-

¹ SEYMOUR, F. C., Personal communication.

² FERNALD, M. L., Another Century of Additions to the Flora of Virginia, RHODORA 43, p. 508.

³ FERNALD, M. L., Gray's Manual of Botany, American Book Co., p. 636, 1950.